
Information and recommendations for patients

- Patients exposed only to dimethylformamide vapor do not pose a significant risk of secondary contamination. Patients whose clothing or skin is contaminated with liquid dimethylformamide (boiling point 153°C, 307°F, respectively) can secondarily contaminate rescue and medical personnel by direct contact or evaporation of dimethylformamide.
 - Dimethylformamide is irritating when it comes in contacts with the eyes, skin, and throat and causes headache, nausea, vertigo, dizziness, weakness, disorientation, and hypotension. Liver toxicity and alcohol intolerance have been noted.
 - There is no antidote to be administered to counteract the effects of dimethylformamide. Treatment consists of supportive measures.
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Substance information

Dimethylformamide ((CH₃)₂N-CHO), CAS 68-12-2

Synonyms: DMF, formyldimethylamine

Dimethylformamide is, at room temperature, a colorless to very slightly yellow liquid with a faint amine or "fishy" odor. Though stable at normal temperatures and storage conditions, dimethylformamide may react violently with halogens, alkyl halides, strong oxidizers, and polyhalogenated compounds in the presence of iron. Decomposition products include toxic gases and vapors such as dimethylamine and carbon monoxide. It is water-soluble.

Dimethylformamide is an organic solvent with a slow evaporation rate used for polar polymers and resins, adhesives, cleaners, zinc electroplating, protective coatings, inks, film, paint removers, and in selective gas absorption. It is used in Orlon® and acrylic fiber spinning, synthetic leather, polyurethanes, wire enamels, chemical manufacturing and pharmaceutical production.

What immediate health effects can result from exposure to dimethylformamide?

Most exposures to dimethylformamide occur by inhaling the vapor or from direct skin contact. Exposure to small amounts usually irritate the eyes, skin, and throat and cause headache, nausea, vertigo, dizziness, weakness, disorientation, and hypotension. Liver toxicity and alcohol intolerance have been noted. Severe exposure may cause coma and death.

Are any future health effects likely to occur?

A single small inhalation exposure from which a person recovers quickly is not likely to cause delayed or long-term effects. Some people who have had serious inhalation exposures may develop permanent breathing difficulty and may tend to develop lung infections easily. In case of ingestion or skin absorption gastrointestinal, cardiovascular, and nervous system disorders, as well as hepatic necrosis have been observed.

Follow-up instructions

Keep this page and take it with you to your next appointment. Follow only the instructions checked below.

- () Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 24 hours, especially:
 - coughing, wheezing, difficulty breathing or shortness of breath
 - chest pain or tightness
 - increased pain or a discharge from exposed skin or eyes
 - headache, nausea, dizziness
- () Call your doctor or the Emergency Department if you develop any unusual signs or symptoms within the next 72 hours, especially:
 - abdominal pain or discomfort
 - yellow skin
- () No follow-up appointment is necessary unless you develop any of the symptoms listed above.
- () Call for an appointment with Dr. _____ in the practice of _____
When you call for your appointment, please say that you were treated in the Emergency Department at _____ Hospital by _____ and were advised to be seen again in _____ days.
- () Return to the Emergency Department/ _____ Clinic on (date) _____ at _____ am/pm for a follow-up examination.
- () Do not perform vigorous physical activities for 1 to 2 days.
- () You may resume everyday activities including driving and operating machinery.
- () Do not return to work for _____ days.
- () You may return to work on a limited basis. See instructions below.
- () Avoid exposure to cigarette smoke for 3 days; smoke may worsen the condition of your lungs.
- () **Drinking of alcoholic beverages is strictly forbidden for at least three days; alcohol worsen your clinical condition.**
- () Avoid taking the following medications: _____

- () You may continue taking the following medication(s) that your doctor(s) prescribed for you: _____

- () Other instructions: _____

Signature of patient _____ Date _____
Signature of physician _____ Date _____

References

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